

AMENDMENTS TO THE SPECIFICATION:

Please amend the heading beginning at page 1, line 3, as follows:

Field of the Invention

Please amend the paragraph beginning at page 1, line 5, as follows:

The present ~~invention~~ disclosure relates to the alignment of uplink and downlink Transmission Time Intervals in Wideband Code Division Multiple Access (WCDMA) based communication networks.

Please amend the heading beginning at page 1, line 9, as follows:

Background to the Invention

Please amend the heading beginning at page 3, line 23, as follows:

Statement of the Invention Summary

Please amend the paragraph beginning at page 3, line 25, as follows:

According to a first aspect ~~of the present invention~~ there is provided a method of aligning Transmission Time Intervals of physical channels in the uplink and downlink directions of a bidirectional radio communication system, the method comprising:

Please amend the paragraph beginning at page 4, line 1, as follows:

Example Embodiments ~~embodiments of the present invention~~ can reduce the round trip time in the WCDMA system by introducing variable TTI alignment between the downlink and uplink

directions. The reduced roundtrip time leads to lower SDU delays and higher throughput particularly in packet data services such as TCP connections.

Please amend the paragraph beginning at page 4, line 6, as follows:

Preferably, said bidirectional radio communication system is a WCDMA system, although ~~it~~ the present ~~invention~~ technology may be applied to other systems which are not WCDMA based.

Please amend the paragraph beginning at page 4, line 21, as follows:

In certain example embodiments ~~of the present invention~~, the user terminal measures its response processing delay and computes the amount of delay to be applied based upon that measurement. The delay amount is signalled to the Radio Access Network (RAN) of the WCDMA system. The user terminal may measure the response processing delay once or only seldom and store that delay in memory for later use. Alternatively, the delay may be measured dynamically.

Please amend the paragraph beginning at page 4, line 28, as follows:

In an alternative example embodiment, the response processing delay is measured by the user terminal and is transmitted to the RAN. The RAN then determines an appropriate delay amount based upon the received measurement, and sends the delay amount to the user terminal.

Please amend the paragraph beginning at page 5, line 14, as follows:

According to a second aspect ~~of the present invention~~ there is provided a user terminal for use with a bidirectional radio communication system, the terminal comprising means for delaying the Transmission Time Intervals of an uplink physical channel with respect to those of a

corresponding downlink physical channel or channels by an amount dependent upon a measurement or estimate of the response processing delay of the terminal.

Please amend the paragraph beginning at page 5, line 21, as follows:

In certain example embodiments ~~of the invention~~, the terminal comprises means for measuring the response processing delay. In other embodiments, the terminal comprises means for storing a predefined response processing delay or delay amount.

Please amend the paragraph beginning at page 5, line 29, as follows:

According to a third aspect ~~of the present invention~~ there is provided a Radio Network Controller for use in a Radio Access Network of a WCDMA system, the Controller comprising means for processing uplink physical channels taking into account delays, relative to the corresponding downlink physical channels, in the Transmission Time Intervals introduced by the sending user terminals based upon respective measures or estimates of the user terminal processing powers.

Please amend the paragraph beginning at page 6, line 4, as follows:

According to a fourth aspect ~~of the present invention~~ there is provided a method of controlling the broadcast power levels at a node of a bidirectional communication system, the method comprising sending power control signals to said node from a peer node at regular intervals on an uplink channel, the uplink and downlink channels being synchronised to ensure correct correlation between the power control signals and the respective broadcast power levels, the power control signals being delayed with respect to the downlink signal by an amount dependent upon the response processing delay at said peer node.

Please amend the heading beginning at page 6, line 24, as follows:

Detailed Description of a Preferred Embodiment

Please amend the paragraph beginning at page 6, line 26, as follows:

As already stated above, according to WCDMA standards it is necessary to align the Transmission Time Intervals (TTIs) of corresponding physical downlink (DPCH) and uplink (DPCH) channels in time ~~to ensure~~. Traditionally, this has meant synchronising the TTIs. However, this will tend to result in a delay of at least one TTI in sending responses in the uplink direction to data received in the downlink direction.

Please amend the paragraph beginning at page 8, line 1, as follows:

It will be appreciated by the person of skill in the art that various modifications may be made to the ~~above~~ above-described example ~~embodiments without departing from the scope of the present invention~~. For example, a similar result to that achieved by delaying the TTI of the uplink physical channel with respect to the downlink physical channel may be achieved by varying the offset at the physical layer, i.e. delaying the actual frame structure, by an amount dependent upon the response processing delay. However, as this implementation represents a more fundamental change, and may require hardware modifications, it is less likely to be implemented in practice.